

**Amendments to the Claims:**

This listing of the claims will replace all prior versions, and listings, of claims in the application.

**Listing of the Claims**

Claims 1-66 (canceled).

Claim 67 (new). A system for controlling a consist of at least a first locomotive having a first locomotive control and a second locomotive having a second locomotive control in response to operator input provided to a master control for the consist, said operator input indicating a desired operating mode from a plurality of operating modes, said operating modes including at least one power operating mode and at least one performance profile optimization mode, said system comprising:

- a communication link providing command information corresponding to the desired operating mode information from the master control;

- a first processing module coupled to the communication link and responsive to the received command information for determining a mode of operation of the first locomotive according to a first power operating mode;

- a second processing module coupled to the communication link and responsive to the received command information for determining a mode of operation of the second locomotive according to a second power operating mode, wherein, in at least one mode of the plurality of operating modes, the power operating mode of the second locomotive is different as compared to the power operating mode of the first locomotive;

wherein the first and second processing modules determine the power operating mode of the first and second locomotives, respectively, as a function of a determined fuel consumption rate of at least one of the first and second locomotives.

Claim 68 (new). The system of claim 67 wherein a performance profile defines a fuel consumption rate of the first locomotive and the second locomotive, and wherein the first and second processing modules determine the fuel consumption rate for the first and second locomotives, respectively, from the performance profile.

Claim 69 (new). The system of claim 67 wherein the first locomotive is a lead locomotive operating at the first power operating mode, and wherein the second locomotive is a trail locomotive operating at the second power operating mode.

Claim 70 (new). The system of claim 67 further comprising a link to a GPS indicating a position of the consist and wherein the power operating mode of the first and second locomotives is a function of the position of the consist as indicated by the GPS.

Claim 71 (new). The system of claim 67 wherein the power operating mode of the first and second locomotives is a function of a location of the crew member such that the power operating mode of a locomotive in which a crew member is riding is less than a power operating mode of a locomotive in which a crew member is not riding.

Claim 72 (new). The system of claim 67 wherein the communication link providing command information from the master control is comprised of a wired communication facility.

Claim 73 (new). The system of claim 67 wherein the communication link providing command information from the master control is comprised of a wireless communication facility.

Claim 74 (new). The system of claim 67 wherein first and second processing modules further determine the power operating mode of the first and second locomotives, respectively, as a function of a determined power consumption rate of at least one of the first and second locomotives.

Claim 75 (new). A system for controlling a consist of at least a first locomotive having a first locomotive control and a second locomotive having a second locomotive control in response to operator input provided to a master control for the consist, said operator input indicating a desired operating mode from a plurality of operating modes, said operating modes including at least one power operating mode and at least one performance profile optimization mode, said system comprising:

- a communication link providing command information corresponding to the desired operating mode information from the master control;

- a first processing module coupled to the communication link and responsive to the received command information for determining a mode of operation of the first locomotive according to a first power operating mode;

- a second processing module coupled to the communication link and responsive to the received command information for determining a mode of operation of the second locomotive according to a second power operating mode, wherein, in at least one mode of the plurality of operating modes, the power operating mode of the second locomotive is different as compared to the power operating mode of the first locomotive;

wherein the first and second processing modules determine the power operating mode of the first and second locomotives, respectively, as a function of a determined power consumption rate of at least one of the first and second locomotives.

Claim 76 (new). The system of claim 75 wherein a performance profile defines a power consumption rate of the first locomotive and the second locomotive, and wherein the first and second processing modules determine the power consumption rate for the first and second locomotives, respectively, from the performance profile.

Claim 77 (new). The system of claim 75 wherein the first locomotive is a lead locomotive operating at the first power operating mode, and wherein the second locomotive is a trail locomotive operating at the second power operating mode.

Claim 78 (new). The system of claim 75 further comprising a link to a GPS indicating a position of the consist and wherein the power operating mode of the first and second locomotives is a function of the position of the consist as indicated by the GPS.

Claim 79 (new). The system of claim 75 wherein the power operating mode of the first and second locomotives is a function of a location of the crew member such that the power operating mode of a locomotive in which a crew member is riding is less than a power operating mode of a locomotive in which a crew member is not riding.

Claim 80 (new). The system of claim 75 wherein the communication link providing command information from the master control is comprised of a wired communication facility.

Claim 81 (new). The system of claim 75 wherein the communication link providing command information from the master control is comprised of a wireless communication facility.

Claim 82 (new). The system of claim 75 wherein first and second processing modules further determine the power operating mode of the first and second locomotives, respectively, as a function of a determined fuel consumption rate of at least one of the first and second locomotives.